PROGRESS
OF
MEDICAL SCIENCE

MEDICINE

UNDER THE CHARGE OF
W. S. THAYER, M.D.,
PROFESSOR OF CLINICAL MEDICINE, JOHNS HOPKINS UNIVERSITY, BALTIMORE, MARYLAND,
ROGER S. MORRIS, M.D.,
FREDERICK FORCHHEIMER PROFESSOR OF MEDICINE IN THE UNIVERSITY OF CINCINNATI, CINCINNATI, OHIO,
AND
THOMAS ORDWAY, M.D.,
DEAN OF UNION UNIVERSITY (MEDICAL DEPARTMENT), ALBANY, N. Y.

The Origin and Nature of Multiple Sclerosis.—MARINESCO (*Rev. Neurol.*, 1919, xxvi, 481) thinks multiple sclerosis should be investigated as an inflammatory process caused by an infectious agent. The lesions are inflammatory in character and the sclerosis is secondary. A *resume* of previous experimental work is given. The author injected the spinal fluid from two cases of multiple sclerosis into guinea-pigs by intraspinal, intracerebral and intraperitoneal routes. The two pigs which had had intracerebral injections showed motor difficulties. The fluid from their fourth ventricles contained spirochetes, unlike the treponema of syphilis. The work was not carried further.

An Interesting Spinal Syndrome Following Gunshot Wounds.—LITTIG (*Monatschr. f. Psychiat. u. Neurol.*, 1919, xlvi, 112) reports nine instances of a spinal-cord syndrome named by him monoplegia spinalis spastica superior. Briefly this consists of a high cervical cord lesion followed by a spastic paresis or paralysis of one arm. Occasionally there are sensory disturbances in the region of the ulnar side of the paretic arm. This syndrome is usually the end-result of many cord wounds, such as a diplegia, hemiplegia or Brown-Séquard symptom complex, but may be primary.

Renal Glycosuria.—ALLEN, WISHART and SMITH (*Arch. Int. Med.*, 1919, xxiv, 523) found three cases of renal diabetes among forty supposed diabetics at U. S. G. H. No. 9. The histories and detailed reports of the laboratory tests are given in the article. No instances of levulose, pentose or glycuronic acid excretion were encountered. No clue as to etiology was found. The prognosis seems to be good, for in no case in the literature has injury resulted from the anomaly, and it has never been known to have ceased. In the instances reported sugar excretion and water excretion have behaved as independent functions. Increase of sugar output did not increase water output. The salient features of carbohydrate metabolism in the three cases and in nearly all of the genuine cases are: "(1) A tendency to glycosuria so strong that sugar freedom is possible only with stringent restriction of diet or actual fasting to such a degree that health would be seriously impaired by attempting to keep glycosuria absent, if, indeed, life were possible at all—the cases in this respect surpassing true diabetes except for very rare examples of extreme severity; (2) normal power of actual carbohydrate utilization, as manifested by 'paradoxical tolerance;' *i. e.*, though some process in the kidney or elsewhere causes the waste of a certain quantity of carbohydrate, and this quantity may increase with increased carbohydrate ingestion, yet the soundness of the assimilative function is shown by the ready utilization of the greater part of every starch or sugar intake, no matter how large; (3) though the blood-sugar level is subject to some variations the low values found in many cases, even after large starch or sugar ingestion, stand in contrast not only to the condition in diabetes but also to the hyperglycemia of normal persons after such feeding." The authors lay emphasis on the desirability of ascertaining in each instance the nature of the reducing substance present in the urine obtained as soon as possible after leaving the kidney.

Exophthalmic Goitre, Basal Metabolism In.—MEANS and AUB (*Arch. Int. Med.*, 1919, xxiv, 638) have followed many patients with exophalthalmic goitres over several years and have been able to observe the results of various forms of treatment. The method of approaching the results is based on the study of the basal metabolism. Short abstracts of the clinical findings of the hyperthyroid patients are included. The other data are presented by tables. Patients with exophthalmic goitre were treated either by rest alone, quinine hydrobromide, roentgen ray or operation or by a combination of these methods. They conclude that "using the basal metabolism as an index of toxicity in exophthalmic goitre" the majority of patients show as good results after two or three years following roentgen-ray treatment as following surgical treatment. "The safest program for the treatment of exophthalmic goitre, as a whole, is the routine irradiation of thyroid and thymus glands, in all cases, with surgery held in reserve for patients who do not then do well. Surgery is contra-indicated with patients whose metabolism is rising in spite of complete rest in bed, and also in patients of the type with moderate tachycardia and great metabolism increase, except when they have previously had thyroid and thymus glands treated by roentgen ray." They also believe that basal metabolism determinations may be of differential diagnostic importance in certain border-line cases.

Entameba Histolytica, Report on the Treatment of; Infections.—GUNN and SAVAGE (*Jour. Royal Army Med. Corps*, London, 1919, xxxiii, 418) report the result of treatment in 383 cases at Alexandria, The diagnosis was based on the presence of entameba histolytica in stools. The patients were in every stage of the disease, some being only cyst carriers, some having large tender livers with high fever. They recommend that acute cases be treated with 1 grain of emetine daily for twelve days, followed by 3 grains of emetin and bismuth iodide for fourteen days. If the condition is very severe when treatment is first begun, and may probably prove fatal if not rapidly brought under control, they recommend an intensive course of treatment of 1 grain emetin hypodermically daily in the morning and 2 or 3 grains of emetin-bismuth-iodide at night. The patient should be carefully watched while such large doses are being administered.

Lumbar Puncture in Brain and Subdural Abscess.—Barries (*Arch. f. Ohren, Nasen. u. Kehlsop f. h.*, 1919, civ, 66) discussess at length the cerebrospinal fluid changes in brain and subdural abscesses. These may be placed in four groups as follows: (1) The fluid is entirely negative in uncomplicated brain or subdural abscess and may remain so until death. (2) The fluid may be cloudy but sterile, later becoming cell-free, in instances showing minimal leptomeningitis. (3) The fluid may be cloudy and contain bacteria, later becoming sterile if there is an extensive leptomeningitis. (4) The fluid may be cloudy and contain bacteria in cases running the course of an acute purulent meningitis. The fluid obtained by lumbar puncture may be of considerable help in diagnosis and prognosis if examined repeatedly. Since, as shown in the groups above, favorable changes are common in the fluid as the disease progresses, a single lumbar puncture may give a wrong impression of the extent and gravity of the meningeal involvement. In certain instances the brain abscess proves fatal although the spinal fluid shows changes which the author calls benign. By repeated lumbar punctures it is possible to gain knowledge only of the extent and gravity of the meningeal changes secondary to a brain or subdural abscess.

Spirillosis Following a Traumatic Hemothorax (Spirillose Pleurale au Cours d'un Hemothorax Traumatique).—Lancereaux (*La presse méd.*, 1919, xxvii, 556) observed a soldier, wounded by a small piece of shell at the left base. The foreign body was near the heart and moved with its pulsation. There was a large hemothorax. On the sixth day 1500 c.c. of bloody fluid was removed from the left pleural cavity. The fluid was sterile. Tapped again and in the fluid there were many active spirilla seen by ultramicroscope and stained specimens showed spirilla. The patient recovered after three thoracenteses and 0.15 gm. novarsenobenzol intrapleurally.

Neurological Complications of Typhus (Les Complications Nerveuses du Typhus Exanthématique).—Paulian (*La presse méd.*, 1919, xxvii, 541). After about fourteen days' incubation slight chills occur and malaise, backache, headache and fever appear. The face is flushed. About the fifth day of fever the exanthema appears. Its character may vary, at first discrete, at times petechial or even purpuric. There is no relation between the fever, the exanthem and the clinical form of the disease. Delirium appears early. About the thirteenth day the fever begins to fall and remits completely by the fifteenth day. In the severe types there is carpologia, the eyes injected, rapid respirations, tachycardia, cyanosis, trismus, stiffness of the neck, Kernig's sign and at times hiccough—a very grave sign. Coma vigil is often present. A meningeal reaction is constant—from the first to the fourth day. Cerebrospinal fluid contains mainly lymphocytes; fourth to twelfth day mononuclears; twelfth to convalescence lymphocytes. Nervous complications of two types: (1) During disease and (2) during convalescence. These are, briefly, hemiplegias, nuclear and midbrain lesions, postfebrile confusional states, regressive cerebellar syndromes, myelitides, neuritis and polyneuritis.

Occurrence, Course and Prevention of Chronic Manganese Poisoning.—EDSALL, WILBUR, DRINKER (*Jour. Industrial Hygiene*, 1919, i, 183). Manganese poisoning occurs among workers handling MnO_2 in manufacture of Cl; in grinding of MnO_2; in mill employees who work in dust containing Mn as oxides and silicates. Diagnostic points are: exposure for three months; languor and drowsiness; expressionless face; monotonous voice; muscular twitching—fine or very gross—cramps and stiffness in calves; worse at night or after exertion; hyperreflexia; ankle and patellar clonus; retropulsion and propulsion; slopping gait. Sensation intact; urine, blood, cerebrospinal fluid; sphincters normal. After harm is done there is no treatment. Problem is one of prevention.

Patches of Deep Pigmentation of the Oral Mucous Membrane not Connected with Addison's Disease.—WEBER (*Quart. Jour. Med.*, 1919, xii, 404) reports a patient, aged fifty-seven years, a Hungarian Hebrew, with remarkable pigmentation of the buccal mucous membrane of the palate and lips. There was no pigmentation of the skin. Necropsy showed extensive miliary tuberculosis without involvement of the pancreas, pituitary or pineal body or either suprarenal. No cause for the pigmentation could be discovered. He concludes: "There is a certain group of cases in which pigmentation, not connected with Addison's disease, occurs in the mucous membrane of the mouth. The pigmentation is in the form of blackish spots and patches in the mucous membrane of the lips or cheeks and sometimes of other parts of the mouth. It is associated with pigmentation of the skin of the face, especially about the mouth and possibly of other parts of the body. It occurs in persons of dark complexion, perhaps especially in Roumanian Jews and in certain races such as Lascars. It is of unknown causation and seems in some cases to be of "physiological" or perhaps of atavistic origin. It may be analogous to the black patches often present in the oral mucous membrane of dogs and other animals. It appears to be allied to simple pigment nevi of the skin on the one hand and to freckles on the other. Jonathan Hutchinson was probably the first to call attention to this class of pigmentation, which perhaps should include various cases published by French authors under the headings "physiological pigmentation" and "racial pigmentation." The author has carefully reviewed the literature of the subject.

Recent Additions to Our Knowledge of Typhus: Acquisitions Récentes sur le Typhus Exanthématique.—FOURCADE (*La presse méd.*, 1919, xxvii, 548). In 1909 Ricketts found oval rods, at times biscuit-shaped, and polar staining in the lice fed on infected blood of humans and monkeys. Prowazek, in 1913, found them in lice in Serbia. In 1916 da Rocha Lima found the same in the gastro-intestinal epithelium of pediculosis vestimenti and called them Rickettsia Prowazeki. The morphology and tinctorial qualities are given in the text. The louse seems to be obligatory intermediate host. The patient can infect the louse only during the febrile period. The louse becomes contagious four days after its infecting repast. The disease can be transmitted to man, apes and guinea-pigs. One attack confers immunity. The reaction of Weil-Felix is of great diagnostic importance. The technic is that of Widal's reaction, using Bacillus proteus X 19 of Weil-Felix instead of the typhoid bacillus. The reaction is positive in 50 per cent. of cases in the third week and constant after defervescence. Often a titer of $\frac{1}{50000}$ is found. A titer of $\frac{1}{50}$ is diagnostic.

SURGERY

UNDER THE CHARGE OF

T. TURNER THOMAS, M.D.,

ASSOCIATE PROFESSOR OF APPLIED ANATOMY AND ASSOCIATE IN SURGERY IN THE UNIVERSITY OF PENNSYLVANIA; SURGEON TO THE PHILADELPHIA GENERAL AND NORTHEASTERN HOSPITALS AND ASSISTANT SURGEON TO THE UNIVERSITY HOSPITAL.

The Condition of the Appendix in Five Hundred Laparotomies on Patients Representing No Symptoms of Appendicitis.—WILLIAMS and SLATER (*Ann. Surg.*, 1919, lxx, 535) report the results of their study of the appendiceal pathology met with in the course of the routine examination of the right iliac fossa during five hundred gynecological operations. About one-third of all women operated on for various pelvic conditions, show undiagnosed lesions of the appendix. In some instances these lesions are the result of extension of an inflammatory process to the appendix from the pelvic organs, but at least one woman in every five shows an appendix lesion without symptoms and without discoverable cause (so far as the pelvic organs are concerned). These lesions are nearly all chronic in nature and consist of the following types: (*a*) adhesions without change in the muscular or mucous coats, (*b*) chronic inflammatory changes in all the layers, (*c*) pericecal veils. The frequency of these lesions is of importance in its relation to two questions: (1) Are such undiagnosed lesions of the appendix the undiscovered cause of reflex symptoms elsewhere? (2) Is there such a clinical entity as chronic appendicitis, or are the symptoms usually ascribed to chronic appendix disease in reality due to some other condition? The writers are inclined to the latter view.

Penetrating Chest Wounds.—LEBOWITZ and NADLER (*Surg., Gynec. and Obst.*, 1919, xxix, 429) reports the results of 276 penetrating wounds